

REMARKS

Favorable reconsideration of this patent application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 28 has been rejected as being indefinite under 35 USC 112; Claims 12-18, and 33 have been rejected as being anticipated by or unpatentable over Reiland, Brown et al., Daoud, Ansingh, Payne, Bradshaw, Whitney, Zayat, Jr., Parsons, or Barmore under 35 USC 102 or 35 USC 103; and Claims 25-28 have been rejected as being anticipated by or unpatentable over Grossberndt et al., Koenig et al., Schuster, or Lee et al. under 35 USC 102 or 35 USC 103. Claims 12-18, 25-27, and 33 have been cancelled, new Claim 35 has been inserted, and consequently, Claims 2-8, 10, 20-24, 28, 32, 34, and 35 are now active in this patent application.

The interview held with Examiner Ackun is hereby acknowledged and sincerely appreciated as a means for expe-

diting the prosecution of this patent application toward allowance. It is initially noted that Claims 32, as well as Claims 2-8 and 10 which depend therefrom, has been allowed, and similarly, Claim 34, as well as Claims 20-24 which depend therefrom, has also been allowed.

It is further noted that Claim 33, and Claims 12-18 which depended therefrom, directed toward the rotary tool per se, have been cancelled.

Accordingly, the only remaining set of claims to be considered are those directed toward the thread form as illustrated, for example, within **FIGURE 11** and as embodied within original Claim 25 and Claims 26-28 which depend therefrom. Claims 25-27 have been cancelled, and new Claim 35 substantially recites the structure illustrated within **FIGURE 11** in that each one of the threads comprises the crest portion 720 disposed parallel to the longitudinal axis of the shank portion, and the forward flank portion comprises the first and second radially outer and radially inner flank surfaces 718-1, 718-2 wherein the first radially outer flank surface

718-1 has a radially outer end portion integrally connected to the crest portion 720, a radially inner end portion of the first radially outer flank surface 718-1 is integrally connected to a radially outer end portion of the second radially inner flank surface 718-2, a radially inner end portion of the second radially inner flank surface 718-2 is integrally connected to the shank portion, and the second radially inner forward flank surface 718-2 is always disposed at a steeper angle with respect to the longitudinal axis of the shank portion than is the first radially outer forward flank surface 718-1. In a similar manner, each one of the threads also comprises a rearward flank portion which is disposed substantially perpendicular to the longitudinal axis of the shank portion along its entire radial extent. In addition, the rearward flank portion comprises first and second radially outer and radially inner flank surfaces 716-1, 716-2 wherein the first radially outer flank surface 716-1 has a radially outer end portion integrally connected to the crest portion 720, a radially inner end portion of the first radially outer flank surface 716-1 is integrally connected to a radially outer end portion of the second radially inner flank surface 716-2, a radially inner end portion of the second radially inner flank surface 716-2 is integrally connected to the

shank portion, and the second radially inner rearward flank surface 716-2 is always disposed at a steeper angle with respect to the longitudinal axis of the shank portion than is first radially outer rearward flank surface 716-1. It is respectfully submitted that none of the prior art discloses this particularly claimed structure.

For example, it is noted in Grossberndt et al. that the thread forms have knife edge crest portions as opposed to axially oriented crest portions disposed parallel to the longitudinal axis of the shank portion of the fastener. In addition, as can be appreciated from any of the drawing figures of Grossberndt et al., particularly **FIGURES 1, and 11-20**, the rearward flank portions of the threads are NOT disposed substantially perpendicular to the longitudinal axis of the shank portion of the fastener along substantially their entire radial extents as are the rearward flank surface portions 716-1,716-2 of the thread form of the present invention as can clearly be seen from **FIGURE 11** of the present application drawings. This structure is important for pull-out resistance characteristics and properties. To the contrary, the thread form of Grossberndt et al. substantially comprises a

conventional thread form as can be appreciated from the aforesaid drawing figures of Grossberndt et al..

In connection with Koenig et al., it is seen that the forward and rearward flank portions comprise multiple surfaces 23, 27, 25 and 22, 26, 24, respectively, wherein such surfaces do not comprise the specifically recited surfaces of the present invention thread form, and in addition, it is also noted that the radially innermost and radially outermost surfaces are disposed at substantially the SAME angles. It is therefore clear that the thread form of Koenig et al. is quite different from the claimed thread form.

Continuing further, in connection with the thread form of Schuster, which can best be seen in **FIGURE 3**, there is clearly no disclosure of the radially inner and radially outer forward and rearward flank surfaces comparable to the flank surfaces 716-1, 716-2, 718-1, 718-2 of the present invention, and lastly, in connection with Lee et al., while the forward and rearward flank surfaces have different angular orientations, it is respectfully submitted that there is no

disclosure of the crest portions being parallel to the longitudinal axis of the shank portion, and the forward and rearward flank surfaces of the thread are not as claimed, more particularly, the rearward flank surface is not substantially perpendicular to the longitudinal axis throughout substantially its entire radial extent. Still further, the different forward and rearward flank surfaces are similar to the surfaces of Koenig et al. in that the radially outermost and radially innermost surfaces are disposed at the SAME angle.

For all of the above reasons, it is respectfully submitted that Claim 35, as well as Claim 28 which depends therefrom, patentably defines over the prior art of record.

In connection with the objection to the drawings, Claim 14 has been cancelled, and therefore the objection is now deemed moot.

Lastly, in connection with the rejection of the claims under 35 USC 112, it is submitted that the claims are

proper as originally presented in that while, for example, the forward and rearward flank portions are recited with respect to the longitudinal axis of the fastener, and while the angular values within Claim 28 recite angular values with respect to the radius, as disclosed within the specification and Table appearing upon Pages 39-40 of the specification, the recitations are submitted to be geometrically consistent and accurate, that is, considering complementary angles.

In light of the foregoing, it is submitted that this patent application is now in condition for allowance, and therefore, an early and favorable action is now anticipated and awaited.

Respectfully Submitted,
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